



TEST YOUR SKILLS

1 TEST A rectangle has...

- A ... one line of symmetry.
- B ... two lines of symmetry.
- C ... three lines of symmetry.
- D ... four lines of symmetry.
- E ... no lines of symmetry.

(USA Northern State University: 52nd Annual Mathematics Contest, 2005)

2 Draw a vector in the plane, and then construct a pair of reflections whose product is the translation determined by the vector.

TEST

3 You want to enlarge a photo that is 3 in tall and 5 in wide into a poster. The poster will be 32 in wide. How tall will it be?

- A 19.2 in
- B 53.3 in
- C 17.0 in
- D 26.5 in
- E None of the above.

(USA Catawba College NCCTM Mathematics Contest, 2005)

4 Which one of the following statements is incorrect?

- A Doubling the base of a rectangle doubles the area.
- B Doubling the altitude of a triangle doubles the area.
- C Doubling the radius of a circle doubles the area.
- D Doubling the divisor of a fraction and dividing its numerator by 2 changes the quotient.
- E Doubling a quantity may make it less than it originally was.

(USA Indiana State Mathematics Contest, 2006)

5 The floor plan of a house is drawn to the scale of $\frac{1}{4}'' = 1'$. The master bedroom measures $3''$ by $3\frac{3}{4}''$ on the blueprints. What is the actual size of the room?

- A $12' \times 14'$
- B $12' \times 9'$
- C $12' \times 12\frac{3}{4}'$
- D $12' \times 15\frac{3}{4}'$
- E None of the above.

(USA Catawba College NCCTM Mathematics Contest, 2005)

6 True or false?

«Any isometry has at least one fixed point».

GLOSSARY

actual: reale

altitude: altezza

base: base

blueprint: progetto

to construct: costruire

divisor: divisore,
denominatore

to double:
raddoppiare

to draw-drew-drawn:
tirare, disegnare

to enlarge: allargare,
ingrandire

fixed: fisso

floor plan: piantina

isometry: isometria

master bedroom:
camera matrimoniale

poster: manifesto

radius: raggio

reflection: riflessione
(simmetria assiale)

size: formato,
dimensione

tall: alto

translation: traslazione

wide: largo